

Atty. Docket No.: 59033-278849
Application No.: 09/689,222

AMENDMENT

Amendment to the Specification:

Please amend the paragraph starting at page 2, line 10 as follows:

FIELD OF THE INVENTION

Embodiments of [[The]] the present invention [[is]] are concerned with management of a Voice Over Internet Protocol (VoIP) network. More particularly, embodiments of the present invention [[it is]] are directed to a Graphical User Interface (GUI) that enables a system manager to initialize, based on predicted link utilization, a plurality of routers and media aggregation managers existing on a selected communication path. The initialization provides the media aggregation managers with reservation protocol session parameters and bandwidth allocation requirements for a predetermined schedule of usage over the VoIP network.

Please amend the paragraph starting at page 3, line 10 as follows:

One of the problems with the existing network management tools is that they do not provide for administration administration of VoIP networks. Another disadvantage of the current tools is that they do not allow a user to initialize multiple routers along a selected VoIP path.

Atty. Docket No.: 59033-278849
Application No.: 09/689,222

Please amend the paragraph starting at page 3, line 17 as follows:

Embodiments of [[The]] the present invention may be provided as a computer program product that may include a machine-readable medium having stored thereon instructions that may be used to program a computer (or other electronic devices) to perform a process according to the present invention. The machine-readable medium may include, but is not limited to, floppy diskettes, optical disks, CD-ROMs, and magneto-optical disks, ROMs, RAMs, EPROMs, EEPROMs, magnet or optical cards, flash memory, or other type of media/machine-readable medium suitable for storing electronic instructions. Moreover, embodiments of the present invention may also be downloaded as a computer program product, wherein the program may be transferred from a remote computer to a requesting computer by way of data signals embodied in a carrier wave or other propagation medium via a communication link (e.g., a modem or network connection).

Please amend the paragraph starting at page 4, line 1 as follows:

SUMMARY OF THE INVENTION

The present invention relates to a method Methods and apparatus are described for administering a VoIP network that contains one or more media aggregation managers.

Atty. Docket No.: 59033-278849
Application No.: 09/689,222

Please amend the paragraph starting at page 10, line 11 as follows:

Embodiments of [[The]] the present invention includes include various steps, which will be described below. The steps of the present invention may be performed by hardware components or may be embodied in machine-executable instructions, which may be used to cause a general purpose or special purpose processor programmed with the instructions to perform the steps. Alternatively, the steps may be performed by a combination of hardware and software.

Please amend the paragraph starting at page 12, line 5 as follows:

In the context of the detailed embodiment, a “Media Aggregation Manager” A “media aggregation manager” may generally be thought of as a network device, such as an edge device at the ingress/egress of a user community, or a group of one or more software processes running on a network device that provides application/protocol specific multiplexing/de-multiplexing of media traffic onto a pre-allocated reservation protocol session.

Please amend the paragraph starting at page 12, line 17 as follows:

In the context of the described embodiment, a A “reservation protocol session” generally refers to a set of reserved network resources, including the routers utilized for the session, established and maintained between two or more network devices that serve as proxies or gate-

Atty. Docket No.: 59033-278849
Application No.: 09/689,222

keepers for application endpoints residing behind the proxies. An example, of a reservation protocol session is an RSVP session between two media aggregation managers.

Please amend the paragraph starting at page 13, line 12 as follows:

~~In the context of the described embodiment, an An "application session" generally refers to a session established and maintained between two or more terminals. According to embodiments of the present invention, one or more application sessions may be multiplexed onto a single reservation protocol session thereby reducing the overhead for establishing and maintaining multiple application sessions.~~

Please amend the paragraph starting at page 14, line 15 as follows:

The reservations may apply to various paths. For example, the bandwidth reservation may lay over path 110 containing one intermediary router 111 or may be allocated over path 120 containing two intermediary routers 121 and 122. The reservation for communications between community 150 and community 160 may also be split over the various paths 110 and 120 depending on the historical and current bandwidth burden on individual routers 111, 121 and 122. The media aggregation managers reserve a protocol session and then multiplex the plurality of data packets for a plurality of communication links to be communicated. As prior technologies required each resident in a community to request an individual reservation session to establish a link between Community 150 and Community 160, media aggregation managers

Atty. Docket No.: 59033-278849
Application No.: 09/689,222

and the apparatuses and methods required for initializing/controlling the media aggregation managers have been developed. Embodiments of [[The]] the present invention focuses on the provide a graphical user interface 100 that enables a user to interactively discover, analyze and initialize the media aggregation managers to handle a schedule of community communications.

Please amend the paragraph starting at page 17, line 20 as follows:

Figure 5 shows the network map interface according to one embodiment of the invention. A graphical representation of a plurality of nodes on the discovered network is shown. In addition, links between each of the nodes and the administration GUI 550 are shown. The network map screen indicates community nodes 510, router nodes 520 and media aggregation managers 530. In the present example, each[[Each]] of the nodes or media aggregation nodes are visually distinct via a graphical representation indicative of the type of node. The user is able to readily identify whether a node is a community, router, media aggregation manager, & etc. simply by looking at its graphical representation. The community nodes 510 may have a plurality of residents, including but not limited to computers, routers, phones, printers, scanners and the like. Each of the nodes and the media aggregation managers have properties associated with it that may be accessed by positioning the cursor over the graphical representation for the node and clicking on a mouse button assigned for property retrieval, in this embodiment, although not shown, the right mouse button is assigned for property retrieval. A properties window immediately appears as shown in Figure 6 indicating information about the node such as the manufacturer 610, the interface addresses 620 or a name 630. Additionally, the properties window may indicate other information about the characteristics of the current configuration of

App. Docket No : 59033-278849
Application No.: 09/689,222

the node. For instance, the property window for a media aggregation manager may indicate how many reservation protocol sessions it is maintaining and with which other media aggregation managers each of the reservation protocol sessions are ~~concerning~~related. The property window may also indicate the available bandwidth for a given node and for what type of communication the bandwidth is available, such as voice or data communication and the amount of bandwidth that is currently allocated for reservation protocol sessions utilizing this particular media aggregation manager as a proxy or gate-keeper. Other properties may include interface command options, such as allocate bandwidth 540, de-allocate bandwidth (not shown), or other interface command options that take the user to various interface screens and option windows.